

of lenses are made from gallium arsenide and one of the lenses is a diffractive lens with a center wavelength of 4.1 microns,

the secondary mirror adapted to receive laser wavelength light and infrared wavelength light reflected from the primary mirror and to reflect the light back through the imager optics to a focal plane,

the secondary mirror having one reflecting surface for the laser light and another reflecting surface for the infrared light;

the pair of reflecting surfaces positioned to change the optical path length between the laser light and the infrared light so that the laser light and the infrared light are imaged at the same focal plane without defocusing.

2. (Original) The imaging system recited in claim 1 wherein the mirrors are aspheric mirrors.
3. (Original) The imaging system recited in claim 1 wherein the primary mirror is aluminum mirror.
4. (Original) The imaging system recited in claim 1 wherein the secondary mirror is a convex mirror.
5. (Original) The imaging system recited in claim 4 wherein the secondary mirror is a Mangin mirror.
6. (Original) The imaging system recited in claim 1 wherein the secondary mirror is made out of germanium.
7. (Original) The imaging system recited in claim 6 wherein the backside of the secondary mirror is coated with silver.

8. (Original) The imaging system recited in claim 1 wherein the secondary mirror is 2mm thick.
9. (Original) The imaging system recited in claim 1 wherein the reflecting surfaces are aspheric.
10. (Cancelled)
11. (Currently Amended) The imaging system recited in claim ~~10~~ 1 wherein two of the lenses of the imager optics are made from zinc selenide.
12. (Cancelled)
13. (Cancelled)
14. (Currently Amended) The imaging system recited in claim ~~13~~ 1 wherein the other lenses of the imager optics have spherical surfaces.
15. (Original) The imaging system recited in claim 1 wherein the secondary mirror is a convex Mangin mirror.
16. (Original) The imaging system recited in claim 1 wherein the primary mirror is a aluminum mirror and the secondary mirror is made out of germanium.
17. (Original) The imaging system recited in claim 16 wherein the backside of the secondary mirror is coated with silver.
18. (Original) The imaging system recited in claim 16 wherein the reflecting surfaces are aspheric.
19. (Original) A dual mode mirror imaging system comprising:  
a Cassegrain-type objective assembly having a primary aspheric aluminum mirror with a hole in its center, and a

secondary aspheric convex Mangin mirror spaced in front of the primary mirror; and

imager optics including two zinc selenide lenses and three gallium arsenide lenses disposed in the hole in the center of the primary mirror, where one of the gallium arsenide lenses is a diffractive lens with a center wavelength of 4.1 microns,

the secondary mirror adapted to receive laser wavelength light and infrared wavelength light reflected from the primary mirror and to reflect the light back through the imager optics to a focal plane,

the secondary mirror having one germanium reflecting surface for the laser light and another silver reflecting surface for the infrared light;

the pair of reflecting surfaces positioned to change the optical path length between the laser light and the infrared light so that the laser light and the infrared light are imaged at the same focal plane without defocusing.

20. (Cancelled)

#### REMARKS

In light of the amendment set forth above, applicant respectfully requests reconsideration of the Office Action dated June 6<sup>th</sup>, 2005 and allowance of claims 1-9, 11 and 14-19.